

**AMENDMENTS TO THE SPECIFICATION**

**Please amend the specification by adding before the first line the sentence:**

This application is the National Stage of International Application No.

PCT/EP2003/011677, filed October 22, 2003.

**Please replace the paragraph no. [0011] with the following amended paragraph:**

[0011] In accordance with one aspect of the invention, a refractive projection objective for imaging a pattern, arranged in an object plane of the projection objective, into the image plane of the projection objective, with the aid of an immersion medium that is arranged between a last optical element of the projection objective and the image plane has

- a first lens group following the ~~image~~object plane of negative refractive power;
- a second lens group following thereupon and of positive refractive power;
- a third lens group following thereupon and of negative refractive power;
- a fourth lens group following thereupon and of positive refractive power;
- a fifth lens group following thereupon and of positive refractive power; and
- a system diaphragm that is arranged in a transition region from the fourth lens group to the fifth lens group,

wherein the fourth lens group has an entrance surface that lies in the vicinity of a point of inflection of a marginal ray height between the third lens group and the fourth lens group, and no negative lens of substantial refractive power is arranged between the entrance surface and the system diaphragm.

**Please replace the paragraph no. [0037] with the following amended paragraph:**

[0037] A typical design of an embodiment of an inventive, purely refractive reduction objective 1 is shown with the aid of figure 1. Given virtually homogenous immersion, it serves the purpose of imaging a pattern, arranged in an object plane 2, of a reticle or the like into an image plane 3 to a reduced scale, for example to the scale of 5:1 (magnification ratio  $\beta = 0.2$ ). This is a rotationally symmetrical single-waist system or two-belly system with five consecutive lens groups that are arranged along the optical axis 4, which is perpendicular to the object plane and image plane. The first lens group LG1 directly following the imageobject plane 2 has a negative refractive power. A second lens group LG2 following directly thereupon has a positive refractive power. A third lens group LG3 following directly thereupon has a negative refractive power. A fourth lens group following directly thereupon has a positive refractive power. A fifth lens group LG5 following directly thereupon has a positive refractive power. The image plane directly follows the fifth lens group such that the projection objective has no further lens or lens group apart from the first to fifth lens group. This distribution of refractive power provides a two-belly system that has an object-side first belly 6, an image-side belly 8 and a waist 7 lying therebetween in which lies a waist X with a minimum beam diameter. In a transition region from the fourth lens group to the fifth lens group the system diaphragm 5 lies in the region of a relatively large beam diameter.